Atmospheric Sounding from Satellites

I will give one presentation on atmospheric sounding that has two parts. This talk is introductory in nature and contains no new scientific research information.

1. Atmospheric Sounding from Satellites

Brief history of satellite sounding using passive infrared and microwave sounders. TIROS Operational Vertical Sounder is a system of sounders, HIRS2, MSU and SSU. It was first launched in 1978 on TIROS-N. Beginning with NOAA-15, AMSU-A/B replace MSU and SSU. IPO and EUMETSAT will be taking over the operational meteorological satellites in early 2000's. Both angencies will be replacing HIRS3 with high spectral resolution infrared sounders. Short description of retrieval algorithms will be given.

2. Atmospheric Infrared Sounder

AIRS is a facility instrument on EOS PM1 platform to measure atmospheric temperature and water vapor profiles. AIRS will form a system together with two microwave sounders, a temperature sounder AMSU-A and a humidity sounder HSB (a copy of AMSU-B). The AIRS science team has been preparing the data processing algorithm for the EOS project. A brief description of the instrument and the algorithm will be given.